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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/098,692

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Stephen P. Laurie

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EXAMINER

TINKLER, MURIEL S

ART UNIT

PAPER NUMBER

3691

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/098,692	<b>Applicant(s)</b> LAURIE, STEPHEN P.	
	<b>Examiner</b> Muriel Tinkler	<b>Art Unit</b> 3691	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on March 15, 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/13/2002</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This application has been reviewed. The original claims 1-18 are pending. The rejections are as stated below.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 9-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claims 9-14 recite the limitation "The computer readable medium as set forth in claim 7" in the first line. There is insufficient antecedent basis for this limitation in the claim. Claim 7 does not declare a computer readable medium.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

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Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 2 and 4-8 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Kihn (US 7,020,629 B1).

Claims 1 and 8 discuss a method and computer readable medium for determining a likely return on investment from combinations of investment projects and selecting a combination having a maximum return on investment, said investment projects being related to product categories, each product category having a given cost model and demand model, said method comprising the steps of: forming a plurality of candidate investment project combinations including all possible projects in all possible combinations; eliminating from further consideration project combinations which do not meet conditions of a set of constraints; determining a new optimal price and changes to the cost and demand models associated with each product category for each of the project combinations; estimating a value added by each project combination for each set of project combinations using the new optimal prices and the changes to the costs and demand models; identifying the project combination which yields maximum value added; and providing an output containing said estimated values added and identified project combination. Kihn discloses:

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- selecting a plurality combination of investments having a maximum return on investment in the abstract, "selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns";
- investments related to products on page 1 and lines 17-20, "The present invention relates to the assessment and management of financial assets and, more particularly, to systems, processes and products involving investment
- determining an optimal price and estimating the value added on page 3 and lines 60-62, "establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum,"
- eliminating projects that do not meet constraints and identifying the combination with a maximum return on page 3 and lines 56-69, "selecting, from these asset classes, portfolios of assets that have demonstrated superior";
- displaying the output on page 10 and lines 46-50, "This spreadsheet displays the rolling selected funds (in this example 4 funds are always maintained in the benchmark--equally weighted) as they would appear chronologically to implement the strategy of the present invention"; and,
- using a computer on page 5 and lines 25-28, "The aforementioned unique identifiers are needed for confirming the identity of the fund/portfolios in order to process the various sets of data in a computer."

Claim 2 discusses the method as set forth in claim 1 wherein said step of elimination comprises eliminating investment combinations which include projects which are

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mutually exclusive. Claim 1 is rejected based on the discussion(s) above. Kihn discloses on page 10 and lines 6-14, "Next comes the filtering to reduce the sample to the set from which final selections are made. In addition, an average monthly return is calculated across the 122 funds that survived the filters. This spreadsheet filters the fund level data as follows: (1) cuts the period from Dec. 31, 1989 through Mar. 31, 2000 to Jan. 31, 1995 through Mar. 31, 2000; (2) eliminates all funds without full return data during the period Jan. 31, 1995 through Mar. 31, 2000; and (3) eliminates all duplicate fund data while keeping those funds with the lowest stated total expenses."

Claim 4 discusses the method as set forth in claim 1 wherein said step of identifying a project combination which yields maximum value added comprises: determining Net Present Value for a base case in the scenario that none of the project combinations are undertaken, and a Net Present Value for each project combination; assigning a Value Added for each project combination by subtracting said base case Net Present Value from each respective project combination Net Present Value. Claim 1 is rejected based on the discussion(s) above. Kihn discloses 'Net Present Value' as 'Net Asset Values' and 'Value Added' as 'returns' on page 3 and lines 12-19, "Related to the Portfolio Data is the Portfolio Tracking Data. These values are used to aid in tracking those portfolios that are used to construct the benchmarks and used to determine expenses charged to shareholders. This data is currently available from the following two primary sources: (1) Lipper provides portfolio level data (e.g., Net Asset Values ("NAVs"), returns, distribution yields, management fees, total expenses, defined asset groupings, etc.)."

Claims 5 and 6 discuss the method as set forth in claim 1 wherein said step of providing an output comprises providing a computer readable output and a human readable output. Claim 1 is rejected based on the discussion(s) above. Kihn discloses on page 9 and lines 51-55, "A specific example, illustrating the system, process and product of the present invention, is given below in reference to the Microsoft Excel spreadsheets depicted in FIGS. 5.1 5.6, 6.1 6.6, 7.1 7.8, 8.1 8.7 and 9.1 9.6. These spreadsheets perform calculations." Microsoft Excel spreadsheet are able to be read by humans, also a performing calculations implies that a computer can ready the data from the spreadsheet.

Claim 7 discusses the method as set forth in claim 1 further comprising the steps of: forming a set of all Maximal Investment Combinations; and applying an Increasing Mutual Returns Rule to said set of all Maximal Investment Combinations in order to further reduce a total number of project combinations for analysis. Claim 1 is rejected based on the discussion(s) above. Kihn discloses selecting a plurality combination of investments having a maximum return on investment in the abstract, as shown in the rejection of claim 1 above. Kihn discloses using the acts of dropping the weakest fund/portfolio and rebalancing in order to maintain tracking with respect to the benchmark discloses on page 6 and lines 1-10, "we drop the weakest of the four previous funds/portfolios and add the strongest fund/portfolio not included in the four funds/portfolios comprising the benchmark. Thus, we target a 100% turnover per year.

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However, it is to be understood that there may be no turnover in any one or more quarters when all four top funds stay within the evaluation criteria. As funds/portfolios are dropped and others added in their place, rebalancing will occur in order to maintain tracking with respect to the benchmark."

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kihn in view of Hankinson (US 2002/0082883 A1).

Claim 3 discusses the method as set forth in claim 1 wherein said step of elimination comprises eliminating investment combinations which include projects which are dependent on other projects which are excluded from the combination. Claim 1 is rejected based on the discussion(s) above. Kihn discloses the elimination or filtering of project. Kihn does not specifically state the use of dependent projects. Hankinson teaches the use of dependent projects on page 2 and paragraph 22 of the specification, "A delay of a project with dependent projects may be regarded as more costly than a delay of a project without dependent projects." Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify



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Kihn to consider dependent projects because keeping the projects that are dependent on excluded projects could cost more money.

Claim 15 discusses a system for determining a likely return on investment from combinations of investment projects and selecting a combination having a maximum return on investment, said system comprising: a product category data store having a plurality of product categories, and having a plurality of cost models and demand models for a plurality of time intervals for each said product category; a investment projects data store containing a plurality of investment project data sets, each data set containing dependency and exclusivity relationships, definitions of product categories affected by a project, fixed costs for a plurality of time intervals, and a means for modification of cost models and demand models; and a parallel investment evaluator adapted to access said investment projects data store and product category data store, to determine a combination of investment projects which yield a maximum value added, and to output said project combination and maximum value added. Kihn discloses:

- selecting a plurality combination of investments having a maximum return on investment in the abstract, as shown in the rejection of claim 1 above;
- investments related to products on page 1 and lines 17-20, as shown in the rejection of claim 1 above;
- a plurality of time periods on page 3 and lines 52-59, "(a) selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns by maintaining momentum during an existing first

period of time of relatively long duration; (b) selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration”;

- a means for modification on page 10 and lines 55-58, “Rebalancing involves repeating the foregoing steps periodically. In this example, after the initial four funds are selected, typically only one will need to be changed each quarter.”

Kihn does not specifically state the use of dependent projects. Hankinson teaches the use of dependent projects on page 2 and paragraph 22 of the specification, as shown in the rejection of claim 3 above. Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Kihn to consider dependent projects because keeping the projects that are dependent on excluded projects could cost more money.

Claim 16 discusses the system as set forth in claim 15 wherein said parallel investment evaluator is adapted to perform the steps of: forming a plurality of candidate investment project combinations including all possible projects in all possible combinations; eliminating from further consideration project combinations which do not meet conditions of a set of constraints; determining a new optimal price and changes to the cost and demand models associated with each product category for each of the project combinations; estimating a value added by each project combination for each set of project combinations using the new optimal prices and the changes to the costs and demand models; identifying the project combination which yields maximum value

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added; and providing an output containing said estimated values added and identified project combination. Claim 15 is rejected based on the discussion(s) above. Kihn discloses:

- selecting a plurality combination of investments having a maximum return on investment in the abstract, as shown in the rejection of claim 1 above.
- investments related to products on page 1 and lines 17-20, as shown in the rejection of claim 1 above.
- determining an optimal price and estimating the value added on page 3 and lines 60-62, as shown in the rejection of claim 1 above.
- eliminating projects that do not meet constraints and identifying the combination with a maximum return on page 3 and lines 56-69, as shown in the rejection of claim 1 above.
- displaying the output on page 10 and lines 46-50, as shown in the rejection of claim 1 above.
- using a computer on page 5 and lines 25-28, as shown in the rejection of claim 1 above.

Claim 17 discusses the system as set forth in claim 16 wherein said parallel investment evaluator is further adapted to perform the steps of: determining a Net Present Value for a base case in the scenario that none of the project combinations are undertaken, and a Net Present Value for each project combination; assigning a Value Added for each project combination by subtracting said base case Net Present Value from each

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respective project combination Net Present Value. Claim 16 is rejected based on the discussion(s) above. Kihn discloses 'Net Present Value' as 'Net Asset Values' and 'Value Added' as 'returns' on page 3 and lines 12-19, as shown in the rejection of claim 4 above.

Claim 18 discusses the system as set forth in claim 16 wherein said parallel investment evaluator is further adapted to perform the steps of: forming a set of all Maximal Investment Combinations; and applying an Increasing Mutual Returns Rule to said set of all Maximal Investment Combinations in order to further reduce a total number of project combinations for analysis. Claim 16 is rejected based on the discussion(s) above. Kihn discloses selecting a plurality combination of investments having a maximum return on investment in the abstract, as shown in the rejection of claim 1 above. Kihn discloses using the acts of dropping the weakest fund/portfolio and rebalancing in order to maintain tracking with respect to the benchmark discloses on page 6 and lines 1-10.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Muriel Tinkler whose telephone number is (571)272-7976. The examiner can normally be reached on Monday through Friday from 7:30 AM until 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached on (571)272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MT  
January 24, 2007



HANI M. KAZIMI  
PRIMARY EXAMINER